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STRUMIGENYS YALEOPLEURA species nov.

Insecta: Hymenoptera: Formicidae: Myrmicinae: Dacetini

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DIAGNOSIS, WORKER: A small species of the *godeffroyi* group, subgroup of *S. perplexa*, or of the *S. lyroessa* group, subgroup of *S. biroi*. From the other known Australian and Melanesian species of the *perplexa* subgroup, *S. yaleopleura* differs by its broad, shallow, posterior cephalic excision, which recalls that of the Fijian *S. scelestus;* by the rather strongly convex vertex with evenly arcuate lateral margins, and by the short, thick, tapered mandibles without mesal lamellate margins. The mandibles are transitional to those of the *lyroessa* group, but are a little longer relatively than in any members of that group in the region, and are narrower basad. Additional states of diagnostic value are the smooth and shining pleura and disc of postpetiole, and details of pilosity.

HOLOTYPE, WORKER: TL 2.2, HL 0.53, HW 0.41 (CI 77), ML 0.20 (MI 38), SL 0.25 (SI61), WL 0.55 mm (largest specimen seen).

Similar in general form of head and mandibles to the Australian species of the *perplexa* subgroup, but the head has the dorsolateral margins (sides of vertex in full-face view) more strongly and evenly convex, hiding the eyes from direct dorsal view; and the mandibles are relatively shorter than in most of these (an undescribed Australian species has mandibles even shorter), and lacking the lamelliform mesal margins. Lateral mandibular margins convex, especially near insertions; mesal margins approximately straight to near bases, where they curve mesad to form low basal lobes (normally hidden beneath clypeus) approaching in degree of development those of the *S. lyroessa* group, so that the mandibular shafts are broad-basad, tapering to less than half the basal width at apices in a fashion intermediate in this respect between *S. perplexa* and such species of the *lyroessa* group as *S. biroi.* Apical armament of mandible consists of an apical fork of two teeth and one distinct (at 85x) intercalary denticle; dorsal tooth of fork longest, ventral tooth shorter, and intercalary denticle rather robust, acute, and about half as long as the adjacent ventral tooth; preapical tooth a little shorter than the dorsal apical tooth and distant from it by almost its length, and very slightly recurved, spiniform, situated at about the apical quarter of the shaft length.

Eye modest in size, with at most 5-6 facets in greatest diameter; without a preocular indentation or concavity. Apical antennomere incrassate, longer than funiculomeres I-IV taken together; IV thick, but distinctly longer than broad. Scape gently curved and gradually incrassate near midlength.

Alitrunk as in *S. perplexa,* but a little more slender, weakly concave in postmesonotal area, feebly convex over propodeal dorsum (posterior alitruncal dorsum nearly straight in some paratypes). Propodeal teeth lamellate, short, acute, uptilted, continued ventrad by an infradental lamella of moderate width and sigmoidal in outline—concave just below the tooth, convex ventrad, without a ventral projection or plate. Petiole with slender anterior peduncle and rounded, moderately raised node with gently sloping anterior face; node slightly broader than long (W ca. 0.12 mm) as viewed from above. Postpetiolar disc small, convex, smooth and shining, about 0.15 mm wide and half again as broad as long. Spongiform appendages of both nodes exceptionally voluminous, completely surrounding postpetiole. Anterior gastric border also thick and spongiform; basal costulae coarsely filiform, extending to nearly 1/3 the length of basal tergum; remainder of gaster smooth and shining.

Head, alitrunk and petiole densely reticulopunctulate and opaque, except for nearly the whole of the sides of the alitrunk, which are smooth and glassy-shining, and a small, weakly sculptured area on posterior summit of petiolar node. Mandibles and appendages finely and densely reticulopunctulate, weakly shining to opaque.

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Ground pilosity of head and alitrunk abundant, but fine and reclinate, not conspicuous; erect hairs very fine, flagelliform, moderate in length; a pair placed bilaterally on vertex border, plus one or two other, inconspicuous pairs on upper vertex, a pair each on humeri and mesonotum, a few on nodes and gastric tergum, the last stiffly erect, though fine and short, and the flagellate apices of most are abraded or resupinate, so that they appear truncate at higher magnifications. Color medium ferruginous; gaster piceous except apex.

Holotype (MCZ): A worker from Malanda, Atherton Tableland of north Queensland, Australia, at nearly 800 m elevation, 5 Nov. 1950, leg. W. L. Brown, Jr. A single worker taken from a small, rotten root sunken in the floor of the rain forest patch between the town and Malanda Falls.

Paratypes (MCZ, ANIC-Canberra, BMNH-London): A single worker from Kuranda, north Queensland, at about 350 m elevation, found dead on the underside of a polypore fungus in rain forest, 30 October 1950, leg. Brown. TL 2.0, HL 0.46, HW 0.37 (CI 80), ML 0.16 (MI 35), WL 0.52 mm. Aside from the smaller size and relatively broader head, this specimen closely resembles the holotype, although it is somewhat rubbed, and some hairs are missing. After the primary description had been prepared, I received additional series of specimens from a number of localities on the Atherton Tabland, rain forest patches on Cape York Peninsula of Queensland, and even a specimen from north of the Owen Stanley Range in Niugini. These samples of course greatly extend the known range of this species, and they also show that the holotype is at or near the large end of the array of body sizes so far as known; the new specimens are smaller. Workers from Rocky River, Cape York, had HL as small as 0.44 mm, and the single specimen from Popondetta, Niugini, was even smaller—HL 0.43. Strangely, the head widths of these specimens was nearly constant at 0.33 mm, yielding calculated cephalic indices (CI) of 72-77; while ML was usually 0.15-0.16 (MI 32-36). The combined range for all specimens studied is HL 0.43-0.53, HW 0.33-0.41 (CI 72-80), ML 0.15-0.20 (MI 33-38).

QUEEN, dealate (part of nest series from Rocky River): TL 2.2, HL 0.48, HW 0.38 (CI 79), ML 0.17 (MI 35), WL 0.56 mm.

Label data for the newer series of paratypes and nidotypes: Australia: north Queensland: 10 miles from Atherton on the Herberton road, 13 June 1962, leg. R. W. Taylor, acc. no.1561, nest in soil under stone; Iron Range, 143.13E, 12.45S, 14 June 1971, leg. R. W. Taylor and J. Feehan, rain forest berlesate, ANIC 312. Rocky River, ne of Coen, 1 June 1958, leg. P. F. and P. J. Darlington, Jr., rain forest.

This species and *S. scelestus* occupy a position intermediate between the groups of *lyroessa* (subgenus or genus *Labidogenys)* and *godeffroyi,* rendering *Labidogenys* untenable as a formal genus-group entity, in spite of its seeming distinctness in the context of limited faunal studies such as those current in Japan.